FMSIB # _____
FMSIB Staff Use

Freight Mobility Strategic Investment Program
2010 Application Form
Project Summary

PROJECT TITLE

APPLICANT ORGANIZATION | **Agency Number:**
Lead Agency:
Contact Person: | Title:
Address: | Telephone:
Email: | FAX:

PROJECT LOCATION
City:
County:
Legislative District(s):

IDENTIFY STRATEGIC FREIGHT CORRIDOR on which this project is located. (Attach a detailed map of the proposed project and all affected adjacent routes.)

PROJECT ADDRESSED IN ANY REGIONAL and/or STATE TRANSPORTATION PLANS

☐ Regional Plan _____
Name of Plan Date

☐ State Plan _____
Name of Plan Date

ATTACHMENTS

☐ Vicinity Map (required)

COST SUMMARY

Total Project Cost: $_____

Freight Mobility Funds Requested:
$_____

MATCHING FUNDS SUMMARY (must be available at time of obligation)

Total Match: $_____

Public Sector: $_____ ____%
Private Sector: $_____ ____%

Total Match Percentage: _____%

Funding Detail

Partnerships:

Public Sector Match	Anticipated	Committed	Dollars
Lead Agency Funds			
Private Sector Match			
Partnership Total			-

	Total	PE	RW	CN	
FMSIB Request					
Public Sector Match					
Lead Agency Funds					
Private Sector Match					
Need					
Total					
Tentative timeframe	Ad Date	Completed	Completed	Completed	CN Start

Cash Flow Needs:

Dollars (in thousands)	Before 7/01	7/01 - 6/03	7/03 - 6/05	7/05 - 6/07	7/07 - 6/09	TOTAL	
P.E. Phase Total							
Freight Mobility							
R.W. Phase Total							
Freight Mobility							
CN. Phase Total							
Freight Mobility							
					Freight Mobility TOTAL	**$**	**%**
					Partnership TOTAL	$	%
					TOTAL Project Cost	$	%

Project Narrative

1. Please describe the scope of the freight mobility project and how the project will: (a) reduce barriers to or increase capacity for improved freight movement; and/or (b) mitigate the impacts on local communities of increasing freight movement, including rail and road conflicts. (Reducing barriers or increasing capacity includes: truck climbing lanes, re-alignment and re-routing project to avoid excessive truck climbing grades or general congestion; alternate truck routes; dedicated truck lanes; access into and/or out of ports, inter-modal freight facilities and freight terminals; truck turning lanes; changes in roadway or intersection geometry to better accommodate trucks; increasing weight limits; and the use of Intelligent Transportation Systems (ITS). Mitigation includes grade separations, mitigating impacts of increasing truck and/or railroad traffic to a community and can be the use of ITS.)

1 A. In addition, please provide the names, contact information, and comments of the truck and/or rail representatives consulted on this project.

1B. Provide a map identifying the extent of the proposed project and identify all transportation facilities directly affected by the proposal.

1C. Provide traffic data within the project boundaries describing four scenarios:

(1) current traffic values with no project
(2) current traffic values with project completed, if different than (1)
(3) predicted traffic values 10-years in the future with no project
(4) predicted traffic values 10-years in the future with project completed, if different than (3)

Required "Traffic Values" for each of 1-4 above:

(1) Percentage of various vehicle types
(2) Average weekday/average weekend
(3) AM and PM peak period volumes, or 24-hour continuous fluctuation, for both travel directions for vehicles
(4) Provide separate peak period data, or 24-hour continuous fluctuation, pertaining to trucks if freight movement has different timing/peak flow characteristics than other traffic

2. Provide travel time for truck traffic between logical termini that reflect the benefits of the proposal:

- **during free-flow with and without the project**
- **during current truck peak hours with and without the project**
- **during truck peak hours 10-years in the future with and without the project**

Describe other freight mobility benefits from reduced truck travel time as a result of the project.

3. What are some of the benefits that this project will have to improve safety, eliminate noise, reduce emissions, eliminate grade crossings, reduce vehicular delays, or result in other environmental benefits?

4. What is the improvement in the volume to capacity ratio (v/c) for truck peak-hour movements?

Describe any assumptions utilized in gathering and/or applying the data:

Note: HCM = **2000** ITE Highway Capacity Manual

For determination of truck volume to capacity ratio for intersection improvements, go directly to Step 4, skipping Steps 1 through 3.

Step 1: Calculate the current peak hour truck volume		
Current peak volume	vehicles/hour =	(A)
Current percentage of trucks	% trucks =	(B)
Current peak hour truck volume = (A) x (B)/100	trucks/peak hour =	(C)

Step 2: Convert the peak hour truck volume to Passenger Car Equivalents		
Factor for converting trucks to Passenger Car Equivalents (PCE)	PCE factor =	(D)
Use a factor of 1.5 except for the following conditions:		
For upgrades use the value from Exh 21-9 of the HCM using the specific site conditions		
For downgrades use the value from Exh 21-11 **o**f the HCM using the specific site conditions		
Passenger car equivalents = (C) x (D)	PCE's/peak hour =	(E)

Step 3: Determine the current facility capacity (without the proposed project)		
Highway capacity value from the HCM	PCPHPL =	(F)
For multilane highways, use the value from Exh 21-2 for the posted speed and LOS D		
For basic freeway sections on four-lane or more freeways, use Exh 23-2 for the posted speed and LOS D		
Number of current lanes in the direction of peak hour flow	Lanes =	(G)
Current Capacity = (F) x (G)	PCPH =	(H)

Step 4: Determine the current truck volume to capacity ratio			
For Intersections			
	The capacity value (I) is typically computed using computer software developed for this purpose, or can be hand calculated using the procedure established in the HCM (Chapter 16 for signalized intersections, or Chapter 17 for un-signalized intersections)		
		Capacity value I =	(I)
	Intersection truck v/c = (I) x (B)/100	Intersection truck v/c =	(J)
OR			
For Highways			
	Highway truck v/c = (E) / (H)	Highway truck v/c =	(J)

Step 5:			
	Determine the projected truck volume to capacity ratio using the methods presented in the above Steps 1 through 4, only using the conditions and factors <u>with</u> the proposed improvements in place.		
			(a)
			(b)
	Step 1: peak hour truck volume (c)		(c)
			(d)
	Step 2: truck volume to passenger car equivalents (e)		(e)
			(f)
			(g)
	Step 3: facility capacity with improvements (h)		(h)
	Step 4 (for intersections):	Capacity value (i) =	(i)
	Intersection truck v/c = (i) x (b)/100	Intersection truck v/c =	(K)
	OR		
	Step 4 (for highways):		
	Highway truck v/c = (e) / (h)	Highway truck v/c =	(K)

Step 6:			
	v/c improvement due to project = (J) - (K)	v/c improvement =	(L)
	(enter zero if calculation is less than zero)		

5. If this project results in improved railroad operating efficiencies, please describe the increases to train velocity, the reduction in train delays, and increases in capacity.

6. What is the significance of this project to the <u>regional</u> economy? Describe the project's impact on the regional freight transportation system and the regional economy (i.e., nature of the improvement and principal freight moved; improved intra-regional and inter-regional freight movement in terms of products, industries and direct employment; improved freight movement and access to domestic and international markets in terms of freight, industries and direct employment; benefits to other regional industries; and access and links to intermodal connections and facilities.)

7. What is the significance of this project to the <u>state</u> economy? Describe the project's impact on the state (outside the region) freight transportation system and the state (outside the region) economy. (i.e., improved intrastate freight movement in terms of products, industries and direct employment; improved freight movement to domestic and international markets in terms of freight, industries and direct employment; and benefits to other state industries.)

8. **Does the project improve the freight movement for <u>direct</u> port access or across an international border? ☐ No ☐ Yes Explain the proximity and the relationship of the project to the port or border and how it improves freight flow.** _____

9. **Is this project part of a regional corridor solution or major system improvement? Is your regional planning council supportive of the project? Describe.** _____

List the state and regional plans which include the proposed project. List the stakeholders and describe the process by which the proposed project was selected and prioritized. _____

10. **Provide travel time for non-truck traffic between logical termini that reflect the benefits of the proposal:**
    - **free-flow with and without the project**
    - **during current AM and PM peak hours with and without the project**

    Describe other non-truck traffic benefits from reduced travel time as a result of the project

11. **What is the reduced queuing and backups due to at-grade road/rail crossings as a result of this project?**

Step 1: Calculate the current queuing (without the proposed project).

Using the Watson Equation: Q = V x R
Q = Average queue length (in number of vehicles per lane)
V = volume expressed in ADT divided by number of lanes in one direction
R = Percentage of time per day either the crossing is closed or vehicles are stopped at a crossing.

Current Average Daily Traffic (ADT) (A) _____ Vehicles/day
Number of lanes in one direction (B) _____ Lanes
Volume = (C) = (A) / (B) (C) _____ Vehicles/lane
Current closure or stoppage time either measured or calculated (D) _____ %
Average queue length (E) = (C) x (D) (E) _____ Vehicles/lane

Step 2: Calculate the projected queuing with the proposed improvement:

Projected Average Daily Traffic (ADT) (F) _____ Vehicles/day
Number of lanes in one direction with proposed improvements (G) _____ Lanes
Volume = (H) = (F) / (G) (H) _____ Vehicles/lane
Projected closure or stoppage time either measured or calculated (I) _____ %
Average queue length (J) = (H) x (I) (J) _____ Vehicles/lane

Step 3: Reduction in queuing = (K) = (E) – (J) or zero,
if calculated value is less than zero. (K) _____ Vehicles/lane

12. **What is the time to travel to an unobstructed crossing (in minutes)? If present queuing can result in emergency vehicle delay, what is the distance and travel time to the next alternative routing?**_____

13. **Is the project on a designated urban principal arterial?** ☐ **No** ☐ **Yes**

14. **Have there been any accidents at the project location that this freight project will help reduce?**
☐ **No** ☐ **Yes, summarize the 5-year accident history (separating railroad crossing accidents and non-railroad crossing accidents) and explain how the project will reduce each type of accidents.**_____

15. **Is the project located on an essential emergency vehicle access route?** ☐ **No** ☐ **Yes**
Describe. (i.e., fire, police, ambulance, school bus route and include closest alternative emergency access) _____

16. **Does this project result in additional road/rail closures? How many and where?**
☐ **No** ☐ **Yes** _____

17. **Does the project result in operational efficiencies to the railroad network/system and benefit economic development and the overall capacity and movement of freight within the State/Region?**

18. **Does the project improve access to key employment areas?** ☐ **No** ☐ **Yes** **Describe and include the number of temporary jobs created during construction and the number of permanent jobs preserved and/or created. Include the names of businesses or the types of permanent jobs affected.**

19. **If, as a result of this improvement, train speed limits are planned to be increased, will the applicant be supportive?** ☐ **No** ☐ **Yes** **Describe level of support.**

20. **Is the project located in a non-attainment area for air pollution control?** ☐ **No** ☐ **Yes**

21. **How many sensitive receptor sites are affected by the reduction in train whistle noise in the vicinity of the grade separation? (Vicinity is identified as a quarter of a mile up and down the track and 600 feet each side of centerline. Sensitive receptor sites include residences, schools, churches, hospitals, hotels and motels, each counted as individual facilities.)**

22. **What sustainability (i.e., greenhouse gas reduction, GHG) policies and plans has the applicant adopted? (These could be in project design, construction, maintenance and/or operations) Will these plans/or policies be used in developing the project and to reduce the use of fossil fuels (GHG) emissions?**)

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_____
_____
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_____

23. Freight projects have the potential to not only improve the movement of commerce, but also improve local air quality. Explain how this project provides an overall health and environmental benefit. (e.g. reduction of particulate emissions, contribution to attainment standards in non-attainment area, etc.) How was the information and evaluation arrived at to support the benefit statement? (e.g. traffic model, air emissions model, etc.)_____

_____
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24. **What is the timing for the implementation of the proposed project (i.e, matching with other state/federal funds, phasing with other projects, meeting a concurrency requirement)? Are there critical timing issues associated with this project? (e.g. available funding that may expire, project impact, deteriorating infrastructure or other critical timing issues.)_____**

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25. What are the greatest quantitative benefits of this project? This can be reduced truck/train delay, lowered v/c ratio, improved travel for trucks, job creation/retention, etc. (This information will be used by the Board to develop a cost effectiveness measure.)

26. Describe the degree to which least-cost alternatives were analyzed and considered for this project. _____

_____
_____
_____
_____
_____

27. Describe the uniqueness of this project based on factors not addressed by previously asked questions._____

Freight Mobility Strategic Investment Program
Application Form

Certification

Applicant Organization

(To be signed by the Mayor, Chair or Executive Director of the Sponsoring Agency)

I certify that _____ supports the proposed Enhancement
(sponsoring agency)

project, has the legal authority to pledge matching funds, and has the legal authority to apply for Freight Mobility Strategic Investment Board funds. I further certify that matching funds are available or will be available for the proposed project. I understand that this is a request for reimbursement through the state system, and that all state rules for contracting, auditing, and payment will apply to this project.

Signature	**Date**
Printed Name	**Title**
Project Title	